

P **Elaeagnus angustifolia**

Common Name(s)

Russian Olive, Silver Berry

How Used

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	Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	(-)-QUEBRACHITOL	Fruit	--	--			
0	1,2,3,4-TETRAHYDRO-BETA-CARBOLINE	Plant	--	--			
0	1-ISOBUTYL-1,2,3,4-TETRAHYDRO-BETA-CARBOLINE	Root	--	--			
		Bark	--	--		Hetherington, M and Steck, W. 1997.	Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	10-HYDROXY-TRIDECAF-6,8-DIENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I.	
						1990. Oxygenated Fatty Acids of the Seeds of	
						Elaeagnus angustifolia. Chem. Nat. Comp. 30	
						6: 661-665. Inst Chem Plant Subst Acad Sci	
						Uzbek Ssr Tashkent Uzbek USSR.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	12,13-EPOXY-OCTADEC-9-ENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	12-HYDROXY-OCTADECA-8-DIENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	12-HYDROXY-OCTADECANOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	15,16-EPOXY-OCTADECA-9,12-DIENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	2-CARBOXYARABINITOL	Leaf	--	311	0.08903096288704487	Moore, B. D., Isidoro, E., Seemann, J. R. 1993. Distribution of 2-Carboxyarabinitol Among Plants. <i>Phytochemistry</i> 34 3: 703-707. Dept. Biochem. Univ. Nevada Reno 89557, USA.
0	2-METHYL-1,2,3,4-TETRAHYDRO-BETA-CARBOLINE	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	3-O-(GLUCO-GALACTO)-FERULOYL-ISORHAMNETIN	Plant	--	--		Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	7-O-COUMAROYLKAEMPFEROL-3-O-GLUCOSIDE	Plant	--	--		Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	9,10-EPOXY-OCTADEC-12-ENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	9-HYDROXY-HEXADEC-10-ENOIC-ACID	Seed Oil	--	--		Goncharova, N., Plugar, V. N., Rashkes, Y. V., Isamukhamedov, A. S., Glushenkova, A. I. 1990. Oxygenated Fatty Acids of the Seeds of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 30 6: 661-665. Inst Chem Plant Subst Acad Sci Uzbek Ssr Tashkent Uzbek USSR.
0	ALKALOIDS	Bark	2000	2000	-0.8687069002434933	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
112	ASCORBIC-ACID	Fruit	40	500	-0.25340050910901013	
0	ASH	Seed	24000	24000	-0.7182572214591987	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

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102	CAFFEIC-ACID		Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID		Fruit	--	--	Kusova, R. D., Kazakov, A. L., Luk'yanchikov, M. S. 1988. Phenolic Compounds From Fruit of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 24 3: 392-393. Pyatigorsk Farm Inst Pyatigorsk USSR.
1	CALLIGONINE		Bark	--	--	
43	CATECHIN		Bark	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CATINCIN		Fruit	--	--	Kusova, R. D., Kazakov, A. L., Luk'yanchikov, M. S. 1988. Phenolic Compounds From Fruit of <i>Elaeagnus angustifolia</i> . Chem. Nat. Comp. 24 3: 392-393. Pyatigorsk Farm Inst Pyatigorsk USSR.
77	CHLOROGENIC-ACID		Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DIHYDROHARMAN		Bark	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DIHYDROHARMAN		Plant	--	--	Nikolaeva, A. G. 1970. Alkaloids of <i>Elaeagnus angustifolia</i> . Chem Nat Comp 6 5: 659-. Zaporozhie Med Inst Kaporozh USSR.
0	ELAEAGNINE		Plant	--	--	

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51	ELLAGIC-ACID		Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	EO		Shoot	--	--	Isaev, V. 1932. Essential Oils of the Flora of Tadzhikistan. Acta Hortii Bot Tadzhikistan 1932: 17-.	
0	EO		Flower	--	1000	-0.3900301229812082	
40	EPICATECHIN		Bark	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
2	ETHYL-CINNAMATE		Flower	--	790	1	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	FAT		Seed	18000	263000	-0.012576297105149901	
61	FERULIC-ACID		Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
8	GLUTAMIC-ACID		Root	--	0.48	-1.2905101027270787	Wheller, C. T., Bond, G. 1970. The Amino Acids of Non-Legume Root Nodules. Phytochemistry 9: 705-708. Dept. Botany Univ. Glasgow Glasgow, Scotland.
7	HARMAN		Shoot	--	--		

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7	HARMAN	Root	--	--	Gill, S., Raszeja, W.	1971. Chromatographic Analysis of Harman Derivatives in Some Plant Raw Materials. Gdansk Tow Nauk Rozpr Wydz 1971 8: 137-143. Akad Med Gdansk Poland.
7	HARMAN	Root Bark	--	--	Gill, S., Raszeja, W.	1973. Chromatographic Analysis of Harman Alkaloid Derivatives in Some Plant Raw Materials. Rozpr Wydz 3 Nauk Mat-Przyr Gdansk Tow Nauk 8: 137-. Acad Med Danzig Poland.
23	HARMINA	Root	--	--	Gill, S., Raszeja, W.	1971. Chromatographic Analysis of Harman Derivatives in Some Plant Raw Materials. Gdansk Tow Nauk Rozpr Wydz 1971 8: 137-143. Akad Med Gdansk Poland.
23	HARMINA	Shoot	--	--	Lutomski, J., Nowicka, B.	1968. Simple Carboline Alkaloids. VI. Comparative Chemical Evaluation of Alkaloid Fractions From Different Sources. Inst. Przem 14 4: 235-238. Poznan Poland.
1	HARMOL	Root Bark	--	--	Gill, S., Raszeja, W.	1973. Chromatographic Analysis of Harman Alkaloid Derivatives in Some Plant Raw Materials. Rozpr Wydz 3 Nauk Mat-Przyr Gdansk Tow Nauk 8: 137-. Acad Med Danzig Poland.
1	HARMOL	Shoot	--	--	Gill, S., Raszeja, W.	1973. Chromatographic Analysis of Harman Alkaloid Derivatives in Some Plant Raw Materials. Rozpr Wydz 3 Nauk Mat Przyr Gdansk Tow Nauk 8: 137-143. Akad Med Danzig Poland.

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11	ISORHAMNETIN	Fruit	--	--	Kusova, R. D., Kazakov, A. L., Luk'yanchikov, M. S.	1988. Phenolic Compounds From Fruit of <i>Elaeagnus angustifolia</i> . <i>Chem. Nat. Comp.</i> 24 3: 392-393. Pyatigorsk Farm Inst Pyatigorsk USSR.
11	ISORHAMNETIN	Plant	--	--	Hetherington, M and Steck, W.	1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	ISORHAMNETIN-3-O-GALACTOSIDE	Plant	--	--	Hetherington, M and Steck, W.	1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	ISORHAMNETIN-3-O-GLUCOSYLGALACTOSIDE	Plant	--	--	Hetherington, M and Steck, W.	1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
75	KAEMPFEROL	Leaf	--	--	List, P.H. and Horhammer, L.	Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	N(B)-METHYL-TETRAHYDROHARMOL	Bark	--	--	List, P.H. and Horhammer, L.	Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

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0	N-METHYL-TETRAHYDROHARMOL	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite.	1991.
2	NEO-CHLOROGENIC-ACID	Leaf	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin,	1969-1979.
0	OCTADECADIENOIC-ACID	Seed	13570	15365	1	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	OCTADECATRIENOIC-ACID	Seed	--	3170	-1	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	OCTADECENOIC-ACID	Seed	--	6085	1	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
64	OLEANOLIC-ACID	Bark	--	2140	1	Zhong, J. F., Jin, J. H., Li, X. P. 1991. Determination of Oleanolic Acid in Russian Olive (<i>Elaeagnus angustifolia</i>) by TLC-Scanning. Chung Ts'ao Yao 22 3: 398-399. Gansu Inst New Med Pharm Sci Lanzhou 730050 China.

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64	OLEANOLIC-ACID	Plant	--	--		Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
25	P-COUMARIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	PALMITIC-ACID	Seed	--	1145	-0.6759759843568258	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
2	PALMITOLEIC-ACID	Seed	--	495	-0.2865853497815508	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	PROTEIN	Seed	92000	420000	1.6563804103006274	
0	QUEBRACHITOL	Fruit	--	--		
176	QUERCETIN	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	SINAPIC-ACID	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
8	STEARIC-ACID	Seed	--	235	-0.5602913382599791	Hetherington, M and Steck, W. 1997. Natural chemicals from northern prairie plants - the phytochemical contents of one thousand North American species. 277 pp. Ag-West Biotech, Inc. Saskatoon, Canada. Fytokem Products, Saskatoon.
0	TETRAHYDROHARMAN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TETRAHYDROHARMAN	Plant	--	--		
0	TETRAHYDROHARMOL	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
93	TOCOPHEROL	Fruit	1	20	-0.5354215411219696	
0	TRANS-CINNAMIC-ACID-ETHYL-ESTER	Flower Essent. Oil	--	788800		Li, Z. L., Chen, N., Xue, D. Y., Li, H. Q., Chen, Y. Z. 1989. Chemical Constituents of the Volatile Oil of Fresh Flowers of <i>Elaeagnus angustifolia</i> L. <i>Gaodeng Xuexiao Huaxue Xuebao</i> 10 8: 804-808. Anal Test Cent Lanzhou Univ Lanzhou China.